



# Development of Infrastructure in Scottish Community Woodlands: A case study analysis

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## OVERVIEW

Community woodlands are becoming more widespread in Great Britain as the recognition of the benefits of community ownership within government grows. In Scotland, there are approximately 200 community woodlands, of which 20 acquired their woodlands through the Community Asset Transfer Scheme (CATS). Infrastructure development comprises a key part of most community woodland management plans, which can be costly and difficult to plan. Therefore, this report aims to identify the barriers and facilitators of infrastructure development in community woodlands as well as provide some insight into CATS.

This report was completed through a desk-based case study analysis of three Scottish community woodlands primarily using online sources and supported by a semi-structured interview. In this report, the background of, leisure activities undertaken, and infrastructure developed in the CWs are outlined in the case study section. This is followed by a discussion and conclusion of the findings.

This report highlights several aspects of infrastructure development that are key to the success of such projects within community woodlands. This includes a thorough understanding of the scope of the project, the enthusiasm of the community, the level of engagement with the community and how it relates to the proposed development, the skills within the group and the ability of leadership to reflect the stage of development. Moreover, this report found that having a clear vision for the asset acquisition, demonstrating previous success, committing own funds, and evidencing substantial community engagement were important aspects to a successful CATS application for the community woodlands discussed.

## ABBREVIATIONS

Community woodland - CW

Community Asset Transfer Scheme - CATS

Community Woodlands Association - CWA

Abriachan Forest Trust - AFT

Mull and Iona Community Trust – MICT

Ardura Community Forest - ACF

Valley Renewables Group – VRG

Etrick and Yarrow Community Development Company – EYCDC

Forestry Commission Scotland – FCS (Now known as Scottish Forestry)

Forest Enterprise Scotland – FES (Now known as Forestry and Land Scotland)

## INTRODUCTION

### COMMUNITY WOODLANDS

Community woodlands (CWs) or forests are those that are managed to some extent by a community group. The bottom-up structure empowers communities to address their needs while providing social, economic, and environmental benefits such as improved social cohesion, job creation, promoting traditional skills, and improving physical and mental health (Lawrence and Ambrose-Oji, 2013; Forest Research, n.d.; Dean, 2017). While in the UK community woodlands are a relatively new concept, it is well established in Europe for example 20% of French forest cover is managed by forest communes (Woodland Trust, 2011). CWs can vary in terms of their motivations, legal structure, group organisation, partnerships, business model, woodland management, benefits distribution, and main funding source. Moreover, some of these differences may be driven by the different policies and legal structures developed by the devolved governments of the United Kingdom, which may favour different community woodland structures (Community Woodlands Association, 2012; Ambrose-Oji, Lawrence, and Steward, 2015; Lawrence and Ambrose-Oji, 2013).

In Scotland, the Community Empowerment Act of 2015 aims to empower communities to have more influence in the “planning and delivery of services” (Local Government and Communities Directorate and Economic Development Directorate, 2021). CATS is a key outcome of this legislation, which acts as a framework from which a community can take control of public land or buildings, by making an Asset Transfer Request outlining the motivations, benefits and how the plan will be actualised which will then be evaluated by an independent panel (Community Ownership Support Service, n.d.; Forest Enterprise Scotland and Forest Commission Scotland, 2017). While there are approximately 200 community woodland groups in Scotland (Community Woodlands Association, n.d.), few have gone through CATS. As of July 2021, Forestry and Land Scotland has received 25 asset transfer requests of which 20 have been approved, one has been withdrawn and one has been refused (S. Watson, 2021, Personal Communication, 30 June).

Physical infrastructure is often a core part of a CW management plan, such as creating or restoring paths or buildings. It can be used to facilitate recreation activities or to manage the impacts of visitors, for example, some might develop cycling paths or outdoor classrooms. Infrastructure does not only refer to the physical infrastructure, but it can also refer to soft forms like human capital (Investopedia Team, 2021). Developing infrastructure is often a core issue in any CW management plan and can require balancing the environmental damage it will cause, any consequential social issues and the costs of building and maintaining. Therefore, the purpose of this report is to identify the main barriers and facilitators of infrastructure development in community woodlands which can be used as a guide by prospective CW development projects and to gain an understanding of the CATS process.

### METHOD

This report analyses three Scottish community woodland case studies: Abriachan Forest, Ardura Forest and Carron Valley Community Woodland. Where Abriachan Forest Trust was developed in response to the sale of the woodland in the 1990s and is considered the standard for success, Mull and Iona Community Trust (MICT) and Valley Renewable Group (VRG) were both already established community-led initiatives before developing a CW. Both MICT and VRG underwent the CATS process allowing for some insight into the scheme and how it may have influenced the infrastructure development plans.

The data was collected through a combination of desk-based research and document analysis. The majority of the data collected are from CATS application documents (feasibility studies, business plans, woodland management plans, decision notice), research articles, CWA documents, newsletter, news articles, and social media posts. It was further supported by a semi-structured interview with the former chair of the Carron Valley woodland group. Attempts have been made to contact MICT and Abriachan to undertake similar interviews however these were unsuccessful. As such, information and analysis relating to both community woodlands are limited to what could be found online.

## CASE STUDIES

### ABRIACHAN FOREST

#### INTRODUCTION

The village of Abriachan in the Scottish Highlands is a small rural community made up of approximately 130 people (Smith, 2021). The community founded the Abriachan Forest Trust (AFT), and acquired approximately 540 hectares of land, made up of a pine plantation and open hill land from the Forestry Commission in 1998 for community use (Woodland Trust, n.d.; Community Woodlands Association, 2012). The original aim of the trust was to develop infrastructure, create local employment & outdoor learning opportunities and improve the environmental value of the forest by diversifying the plantation (Forest Policy Group, 2016). 20 years later, they have become the leading example for CWs in Scotland, with an award-winning forest school education program that employs 4 staff members and hosts several successful skills training programs. They recently became recipients of the 1919 Forestry Act Centenary Award awarded by Scotland's Finest Woods Award (Transition Black Isle, n.d.). Moreover, they have improved access in the woodland with 40km of paths, planted more than 200,000 native trees, and have achieved relative economic stability through commercial felling, sawlogs & roundwood production in addition to grants and donations (Forest Policy Group, 2016; Ritchie and Haggith, 2005).

#### INFRASTRUCTURE DEVELOPMENT

The Trust has significantly improved public access to the woodland through the creation of a car park, approximately 40km of paths, including all abilities trails (CWA, 2012; Forest Policy Group, 2016) and a sustainable development themed QR code trail designed by local artists, schools, and Highland One World (CWA, 2021a; Community Land Scotland, 2021). There is also 14km of bike trails designed and developed by Rik Allsop, divided into 3 trails of varying length and difficulty (Visit Scotland, n.d.; Smith, 2021). There are plans to expand the network of trails by creating a literacy trail (CWA, 2012), extending one of the existing mountain-biking trails and developing a new mountain-biking trail (Visit Scotland, n.d.).

The trust has developed a series of buildings to further their aims of outdoor learning such as a classroom for the forest school, a roundhouse, a bird hide, and an internet connection (Forest Policy Group, 2016; Nominet, 2018). Additionally, they have built two treehouses, rain shelters and workshops. The AFT proposed the creation of a bunkhouse and affordable housing however, these projects did not move forwards due to the cost, competition with another local project and the location (CWA, 2012; Forest Policy Group, 2016). Furthermore, in late July 2020, the roundhouse that was built 21 years ago burned down forcing the forest school and nursery to be temporarily relocated while funds are raised to rebuild the bronze age replica structure (Dixon, 2020; MacLennan, 2020).

#### ACTIVITIES UNDERTAKEN BY THE TRUST

The trust is very active and undertakes many different activities with a variety of outcome aims and target audiences. In particular, it is recognised for its award-winning outdoor education programme that has been reported to have had consequential social impacts. They work with external bodies such as the NHS, local council, and the John Muir Trust to ensure the employability, skill and mental health programs are fit for purpose and effective, highlighting the importance of partnerships. Recently they have expanded the outdoor education program to include a nursery for children aged 2-5, have classes focusing on children who require additional support and have a Roots program to target long term unemployed people referred by job centres (Forest Policy Group, 2016).

For people with and orbit those with dementia, the AFT has developed an outdoor exercise program including walks, body percussion, Gaelic singing lessons and nature-based craft activities (Forest Policy Group, 2016). The AFT also run a community garden to educate members about the benefits of local produce and reusing and recycling household waste, gardening skills, cooking classes, and distributing food to the community (CLS, 2021)

Further outdoor activities include, Nordic walks, sledging, x-country ski, hiking, geocaching, woodcraft, and children play areas (CWA, 2012, Visit Scotland, n.d., Forest Policy Group, 2016; CWA and NHS Highland, 2013; Scottish Natural Heritage, 2015). The AFT has focused a lot of resources toward mountain biking, expanding the number of trails, having a bike hire and private car hire services to transport bikes to the trails as well as a bike maintenance service (Visit Scotland, n.d.; CWA and NHS Highland, 2013; Forest Policy Group, 2016).

## ARDURA FOREST

### INTRODUCTION

In 2018 transfer of 200ha of Ardura Forest to Mull and Iona Community Trust (MICT) was approved (Wilkie, 2018; Mull and Iona Community Trust, 2019). MICT was founded in 1997 as a Company Limited by Guarantee and a charity, and have since built a Community Centre used as an office, meeting, and training space and developed a ranger service in partnership with NatureScot and Forestry and Land Scotland among others, and developed affordable housing and transport for the community (MICT, 2013, 2017)

The aims outlined for Ardura Forest in the Asset Transfer Request are to increase benefits to the community by generating income for the Trust, increase amenity value that provides a “low-visitor impact experience” while ecological restoring the site (FES, 2017b; MICT, 2017).

To achieve these aims, the Trust plans to lease the woodland to Torosay Hill Estate who are committed to the ecological restoration of the estate, and border 3 sides of the acquired Ardura Forest. Torosay Hill Estate will remove and replant the forest with native broadleaf and Caledonian pine, bear the cost of the restoration and share the profits of the estimated 40,000-50,000 tonnes of commercial timber worth approximately £747,000 – 1.1 million (based on two crop mensurations). In return, MICT will invest in infrastructure requirements and agree to the removal of non-mature commercial trees while retaining full access to the forest for all activities that will be undertaken in the community forest (MICT, 2017).

### INFRASTRUCTURE DEVELOPMENT

MICT carried out community consultation on infrastructure priorities. This revealed that the community were highly concerned about overdevelopment and related consequences, such as increased litter, noise, illegal overnight camping, and vandalism. However, despite these concerns, the community did highlight several visitor and recreational facilities and improvements they would like to see developed. In response, MICT developed a £365,000 infrastructure development proposal, with consideration to the community consultation results (MICT, 2017).

One of the main infrastructure development plans outlined by MICT is to restore 2 miles of the old road that passes through the forest and leads to a particularly scenic area of the forest, where they plan to build a Forest School. This will connect to the Craignure – Fionnphort path and has the potential to generate an additional £1 million for the island economy from increased tourism (MICT, 2017; Wood-Gee, 2014). The restoration project was conducted by TSL contractors and completed in early November 2020 (MICT, 2020a, 2020b).

The community consultation revealed that the development of a forest school was perceived to be the most beneficial project. Therefore, MICT planned to build an uninsulated shelter built by contractors of sawn and whole logs from on-site timber, to be used as a forest school classroom and was expected to cost approximately £20,000 (MICT, 2017). As of April 2021, the Forest School is operational and running a toddler group called Ardura Acorns (MICT, 2021a).

The Social Enterprise Plan outlines the expected site maintenance. It estimates that scraping and grading of the car park biannually, annual inspections of all-abilities trails, repairs and regular maintenance of composting toilets will cost approximately £6,000 annually (MICT, 2017). By the end of 2020, most of the infrastructure development that was planned has been completed. This includes a long-distance track, 2 circular walking trails, parking areas, several picnic areas, a wild camping site and composting toilets (CWA and Scottish Forestry, 2020).

## ACTIVITIES UNDERTAKEN

The Forest School will not create revenue for the MICT and although it is primarily aimed at local school pupils, is thought it has the potential to take on school pupils from the mainland (MICT, 2017). At the time of the request, the local school only had 5 children, however, it is expected that as many as 10 children will attend the Forest School once a week, with local plans to increase the number of families with children in the area (District Valuer, 2017). There were also plans to combine the Forest School with swimming lessons in the local pool nearby to create a full day of activity. Since the spring of 2021, the toddler group Ardura Acorns have been undertaking a variety of activities such as playing in the river, scavenger hunting in the woodland, sowing wildflowers to feed pollinators and making bug hotels. Additionally, 2 out-of-school Care Playworker jobs (part-time) have been advertised (ACF, 2021; MICT 2020c).

Wellness activities have also been organised and undertaken in spring 2021. A Forest Bathing session took place, with the expectation that it will run twice a month, led by an experienced practitioner. A springtime bird song identification walk also took place in Ardura woodland. It is unclear how many people attended these activities however both events had approximately 3-5 people engage with the Facebook posts advertising the event (ACF, 2021). Furthermore, a Community Well-being Officer position was advertised in April 2021 (MICT, 2021b).

At the time of the successful transfer of 200ha of Ardura Forest to MICT, approximately 4ha had already been felled and half of the woodland had been planted with commercial timber (CWA and Scottish Forestry, 2020). In June 2021, the process of felling diseased larch began (ACF, 2021) and the forest joined the Northwoods Rewilding Network, aiming to the ecological restoration of smaller landholdings (Marjoribanks, 2021; Scotland The Big Picture, 2021).

## CARRON VALLEY COMMUNITY WOODLAND

### INTRODUCTION

The Valley Renewables Group (VRG) operates as both a Scottish Charitable Incorporated Organisation (SCIO) and a company that is run by volunteers and has no capital assets (FES, 2017a; Grant and Tunnicliffe, 2017). The trust was created to manage funds designated for community benefit from the Craigenfelt windfarm into schemes such as the grants for improved home energy efficiency and education and environmental skills programmes for young people, with further ambitions to build a community centre (VRG, n.d.a.). The Asset Transfer Request was approved in 2018, shifting 21 hectares of woodland into community ownership and making it one of the first CWs approved through CATS (FES, 2017a; Hodge, 2018).

Carron Valley Community Woodland aims to reduce local fuel poverty and support home heating through timber harvesting, as well as improving biodiversity and develop community activities and events (Grant and Tunnicliffe, 2017). The VRG feasibility report proposes delivering these aims in three stages. Stage one is funded by VRG profits and a Scottish Land Fund grant. It is dedicated to setting up the community woodland by employing staff, delivering woodland management plan, develop basic infrastructure such as storage for equipment, improved paths, notice boards and a bird hide, as well as regular small events for locals (Grant and Tunnicliffe, 2017). Stage 2 involves developing a Community Open Day site to host community events such as BBQs, picnics and farmers markets is to be undertaken after stage one and funded by the VRG. Stage 3 starting at year 5 is to initiate a community-building, however, it is loan dependent and does not detrimentally impact the project should it not continue as stages 1 and 2 will deliver significant positive outcomes for the community (Grant and Tunnicliffe, 2017).

### INFRASTRUCTURE DEVELOPMENT

As of 2021, they have made progress in their infrastructure development plan, and have developed an all abilities core path as well as new paths within the mature woodland with benches at good viewing points. They have also placed a lockfast steel container with electricity access in the woodland to be used as storage and shelter for

volunteers. Additionally, they have set up an account with the iNaturalist app allowing visitors to gather information and record wildlife

Most of the work was undertaken by contractors with specialised equipment & machinery and was planned and overseen by a steering group that included relevant skills such as engineering. Activities that occur at the weekend such as tree and weed control, grass cutting, pruning, seeding, and replanting is undertaken by volunteers under the guidance of the woodland manager (VRG, 2019).

A three year financial and management plan has been created and supported by a forestry consultant group, the community council and BRG board, with an approved future 3-year plan. Future plans include building a community hub, an additional meeting area, a toilet block area, foraging and exercise trails, wildlife hides and wood fuel weekends (VRG, 2019).

## **ACTIVITIES UNDERTAKEN**

Covid-19 restrictions have limited the community activities that have been able to take place. The official opening of the woodland was in April 2019, attracting approximately 200 people with the Woodland group hosting a BBQ at the woodland and offering tours. This provided an opportunity to directly communicate with members of the community and raise donations for the work that will be conducted in the woodland.

The woodland group aimed to host and create courses to develop the skills of community members. They have made strides towards this goal, by hosting an event with a guest speaker in March 2021. The guest speaker taught attendees how to harvest, store, preserve fruit as part of the community woodland orchard project (Valley Renewables Group, n.d.b.). In the future they would like to develop a chain saw training course (Valley Renewables Group, 2019).

In response to significant interest in a community orchard, the VRG provided fruit trees for interested community members to plant an orchard in their gardens. This was accompanied by an event to teach members how to care for and harvest their fruit trees, with the aim to host annual events where those who have taken part in the orchard project can bring their harvest and as a community make products such as cider (VRG, 2019).

To trial their method for accomplishing their aim of reducing fuel poverty in the community, a small area of windblown trees was felled. This provided an opportunity to understand the costs of contractors to fell the trees, as well as the logistics of distributing the wood to the community. Currently, large areas of woodland have been previously felled and 9000 native broadleaf trees have been replanted and a pond has been created. While this was mostly undertaken by contractors, the woodland group hosted a tree planting day for the community.

The woodland is rich in biodiversity having recorded several protected species and species of high conservation concern. To increase community engagement, the woodland group organised for the local scouts' group to help seeding around the pond and build bat and bird boxes and place them, with plans to develop a red squirrel project (VRG, 2019).

To measure the success of the community woodland projects and community engagement, the feasibility report outlined several indices, including (Grant and Tunnicliffe, 2017):

- Number of volunteers, engaged community members, people access facilities, learning opportunities and families accessing free wood fuel
- Improved habitat diversity based on a baseline set by a professional ecological survey
- Progress of Woodland Management Plan
- Increased confidence and skills
- Satisfaction and quality of life of community members



## DISCUSSION

### Project Scope

Project scope is exceptionally important in all aspects of project development, from planning and implementing through to maintenance. It involves a clear idea of why the project is needed, the intended outcomes of the project, what will determine success and assumptions that have been made (Team Clarizen, 2020). Having clearly defined goals and outcomes that are effectively communicated supported by indicators of success, will help avoid project creep potentially leading to wasted money or reduced stakeholder satisfaction (Bellenger, 2003). In terms of community woodland acquisition through CATS, it can be a significant factor in the decision to approve the asset transfer.

#### *Relation to project aims*

The infrastructure development proposal should be clearly tied to the aims of the CW and demonstrate how the proposed infrastructure will aid in achieving those aims. In response to the geographical isolation and lack of infrastructure experienced by the Abriachan community (Forest Policy Group, 2016; Smith, 2021), the AFT developed a forest school to create a focal point for the local children to be educated and entertained. The school now has internet access, hosts events for all ages and accredited skills training programs which are supported by the local council and the John Muir Trust (CWA, 2021b; Forest Policy Group, 2016; Nominet, 2018).

Similarly, the restoration of the old road proposed by MICT and connecting it to another path, has the potential to generate £1 million in economic contributions from the island, accomplishing their aims of increasing the amenity value of the woodland. Furthermore, they may be able to capture some of the economic contributions to the island, which can tie into their aim of providing long term income (MICT, 2017).

#### *Scope size*

In general, a common mistake in developing infrastructure is having a project scope that is too large, which may be undesired by the community where overdevelopment is a concern or impractical to build and maintain. An example could be taken from the restoration or development of new paths, as all CW groups analysed in this report set out to achieve. Balancing the needs of all stakeholders can be difficult, while some would want significantly improved access resulting in paths of concrete, brick, or board walk, these might be expensive to build and maintain while consequently giving the appearance of too developed. On the other hand, a minimalistic approach may feel less intrusive, is less expensive to build and maintain but may limit access to certain users. Furthermore, the infrastructure plan must be aligned with the size of the project, the importance of which is highlighted by the EYCDC unsuccessful CATS application. The decision notice discussed that the main aim of restoring the boardwalk was not sufficient to justify taking control of 173ha of land (Hodge, 2017).

These projects may also fall victim to unexpected costs. AFT build an outdoor classroom as part of their forest school which burned down in 2020, requiring expensive reparations. Because AFT is a long running and successful CW group they were able to raise significant funds online from the community, however not all groups will be able to appropriately manage unexpected exogenous impacts. Similarly, Carron Valley CW experienced infrequent fly-tipping that was expensive to remove and dispose of properly. While not an infrastructure project, this does highlight the importance of emergency funds availability.

#### *Measuring success*

While financial goals are the most common success indicator, for businesses with social aims, where the goals are often “profit, people, planet” (Hamm, 2016) non-financial measurements might be the most appropriate (Walker and Brown, 2004). In terms of infrastructure development, determining measures of success for the project, which can be used as a learning tool for the future, and will help build confidence and support for the next development project.

To determine success, the selected goals must be “measurable, pragmatic, and precise” (Hamm, 2016). The measures of success highlighted in the VRG feasibility plan appears to mirror these ideals. In their feasibility plan they detailed measures based on the number of people attending an event, the number of volunteers, improved habitat diversity and community satisfaction among others. However, their infrastructure measures are limited to the completion of certain projects such as “bird hide installation” which would be measured by the number of people using it, instead the delivery of the project (Grant and Tunnicliffe, 2017) in terms of budget, schedule or even scope.

While no specific measures of success could be found for AFT and ACF, one can look towards external measures. AFT has been operating for more than 20 years and is currently still looking for new ways to expand. They have hired several contractors, won multiple awards, run accredited courses recognised by charities and the local council and they are looking for new ways to expand. AFT could also point to high levels of community engagement reflected by raising £2000 in three days to restore a burned down outdoor classroom, as an indicator of success (Dixon, 2020; MacLennan, 2020).

In terms of infrastructure development, success should be measured in terms of its value to the community, the purpose it provides and the cost of the project (Zerjav and Vine, 2018; National Research Council, 1996). The community in Carron Valley desired an all-abilities trail, however, after construction it became apparent it was not fit for purpose as wheelchair access from the car park to the trail was very difficult and required revision to rectify. Therefore, initially, it was unsuccessful in its aim of providing access to all user types, they found that this problem could have been identified in planning had they provided extra consultation and attempted to test it first.

ACF and AFT both developed a forest school to support families living in geographically isolated villages (Forest Policy Group, 2016; MICT, 2017). While the outdoor classrooms might be expensive to build in comparison to other projects undertaken by CW groups, it is fulfilling a need and is actively used by the community. The value the forest school classroom has to the community and the purpose it provides could be demonstrated through number of students engaging as well as survey of how the community feel about the projects. Although, in the absence of such internal measure, the expansion of the service could also be used as an indicator of success, for example ACF have advertised vacancies for two part-time staff members to cope with demand of the forest School and the AFT have expanded their repertoire of courses on offer. However, using the number of staff as a success indicator might be problematic for CWs as some such as AFT are reliant on self-employed contractors (CWA, 2021).

## Community engagement

Community engagement is an important part of any infrastructure development project, as it informs on the need for the project and the impact the development may have (Community Places, 2014). It is often conducted through questionnaires, focus groups and workshops (Herefordshire Council, 2015). However, it is particularly challenging for the rural communities that are encouraged to participate in the asset transfer schemes, as undertaking sufficient consultation engagement is difficult to achieve in geographically spread-out communities (Dickert and Sugarman, 2005; Yellow Book Ltd, 2017). Arnstein’s ladder of participation suggests that community consultation is one of the lowest forms of involvement only just above informing a community, considering that by itself it does not require that any grievances or objections heard must be addressed in a meaningful way (The Citizen’s Handbook, n.d.; Arnstein, 1969). Therefore, the importance of reflecting the will of the community in any infrastructure development cannot be understated.

VRG undertook a community survey in 2016 in which half of the community participated. It was found that a strong majority of respondents wanted to purchase the woodland and develop it into a community hub, using the windfarm funds already designated for community use. Additionally, two-thirds wanted the woodland to be used for walks and environmental educations, a majority wanted improved walking paths and approximately 20% wanted no development. In response to the engagement, the VRG improved the paths, developed environmental education activities for local schools & nurseries and plan to host community events such as BBQs and picnics (Grant and Tunnicliffe, 2017).

While it can be assumed that a community group developed from a bottom-up structure is likely to represent the community views, it may not always be the case (Keatts, 2013), therefore evidencing community engagement and support is essential. Early engagement with communities, which has been shown to reduce conflict (Corscadden, Wile and Yiridoe, 2012) and ensuring support for the proposal is a significant stage in the guidance for developing an Asset Transfer Request within CATS (FES and FCS, 2017). In the decision notice of the MICT and EYCDC CATS applications, the level of community consultation was noted, further demonstrating its importance to the process. Where MICT was praised for their community consultation, the failure to undertake further engagement with the community following changes to the proposal was one of the reasons given for the rejection of their CATS application (Wilkie, 2018; Hodge, 2017).

## Motivation

In Calvert's (2009) report on Community Forestry in Scotland, motivation was discussed as a key issue for community woodland groups. Calvert notes that the high levels of motivation at the beginning of the process may not translate into day-to-day management and funding sourcing to maintain the woodland. Calvert (2009) then went on to describe the "waxing and waning of enthusiasm" in Laggan and Wooplaw. Infrastructure development should be designed with the potential waxing and waning of community enthusiasm in mind. Planning to build a large structure for a community centre, may seem feasible given the potential level of use and enthusiasm, however during a dip in community enthusiasm, it might be much more difficult to commit funds to its maintenance.

In Carron Valley community woodland, the woodland group received high levels of interest from the community for an orchard. Concerned that the community would lack motivation to volunteer to maintain the potential orchard, the woodland group decided against planting an orchard in the woodland. Instead, they provided fruit trees to community members who wanted a mini orchard in their own gardens and hosted an event to teach them how to look after and harvest the fruit trees. The eventual aim is to have an annual event where those who participated in the event, share the harvest of those trees with the community (VRG, n.d.b.).

## Skills gap

The skills gap that exists generally in community-led projects is well documented, with the Woodland Trust report on Community Woodland Creation and Management (2011) noting it to be a key challenge and highlights that in Scotland there is a particular need for "financial and technical support" in the asset transfer process. The skills required to plan and develop the infrastructure is different to operational and maintenance skills, as are the skills needed for forestry management. This should be reflected in the staff, the membership, or the leadership (CWA, 2012), as not having the appropriate skills can lead to scope creep and associated problems (van Leeuwen, 2019).

There are different methods of closing this gap. Calvert (2009) advise that having a minimum of one paid management role would be ideal although recognises that doing so may be difficult due to financial limitations. MICT developed a director board consisting of 19 people of which 3 are co-directors specifically chosen to fill any skills gaps after an audit (MICT, 2017).

CWs often rely heavily or entirely on voluntary work however in the development of infrastructure this method may be implausible as it may require specialist skills and equipment (Confor, CWA and Highland and Islands Enterprise, 2016), therefore having a clear understanding of what can be achieved in house and which work will require contractors is a significant aspect. As MICT had been operating for quite some time before applying for a woodland asset transfer, they already had considerable experience in design, management, implementation of infrastructure projects, meaning they already had the in-house skills to develop these future projects (MICT, 2017).

## CONCLUSION

Through analysing the experiences of three Scottish community woodlands, several barriers and facilitators have been identified in the development of infrastructure and the acquisition of public woodlands through CATS.

To successfully undertake infrastructure development, CW groups will benefit from having an excellent project scope statement, which includes a clear idea of what the aims of the woodland group are and how the proposed infrastructure will aid in achieving that aim. This is demonstrated by MICT aiming to use woodlands to raise funds for the trust and increase amenity value for the community. To that end, they proposed restoring and building paths that will connect to a larger network of paths significantly increasing tourism expenditure. To determine a project to be a success there must be agreed upon indicators for success. For socially-oriented organisations, these indicators will likely be non-financial, as demonstrated by VRG, who use the number of volunteers & guests and satisfaction rates as measurable success indicators. Community-led groups can then use these achieved measures to build confidence in their abilities and support for future projects, which might be key for securing funds.

Community engagement and enthusiasm is a significant aspect to be considered in infrastructure development and must be reflected in the plans. Where engagement will highlight the needs of the communities as well as any protestation which need to be accounted for, enthusiasm will determine how the project will be developed, as demonstrated by the development of an orchard in the Carron Valley Community Woodland. The skills present in CW groups is a well-established issue and can impact the success of an infrastructure project. Having the right skills will help avoid scope creep and all the associated issues such as, cost inflation or an end product that is unfinished or not fit for purpose. Furthermore, communities' groups should be flexible in changing leadership based on the skills required for different stages.

Two of the CWs examined in this report acquired their woodlands through CATS. These were compared to the EYCDC proposal who were unsuccessful in their bid to acquire a woodland. Through this analysis, there are some important aspects to their success or failure that will be beneficial for community groups who are also going through the CATS process. These include having a clear vision for the acquisition, demonstrating previous success, committing own funds to the project, and evidencing substantial community engagement.

There are limitations to this report based on the selection of the woodlands. Both MICT and VRG while providing valuable insight into the CATS process, both recently acquired their respective woodlands which in combination with the Covid-19 pandemic, has restricted their ability to develop infrastructure and hold community events, thereby limiting the analysis of their infrastructure development. Furthermore, as a result of lack of contact with MICT and AFT, the quality of the data collected, and the analysis thereafter was impacted. Future research should have a more in-depth and structured examination, through the use of interviews, into the barriers to infrastructure development in community woodland groups in Scotland and across the United Kingdom to develop a more detailed best practice guideline as well as guidance for how these barriers can be removed or reduced.

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